

## **Storm Water Pollution Prevention Clean Water: The Clear Choice**

Most cities have two drainage systems—the sanitary sewer system and storm drain system. The storm drain system is designed to prevent flooding by carrying excess rainwater away from streets, homes, and businesses. Because storm water from a storm drain system is not usually treated, it serves the unintended function of carrying urban pollution into our streams and rivers.

This pamphlet tells you how to prevent pollution from entering our streams and rivers from polluted storm water.

Storm water runoff mixed with urban pollutants creates storm water pollution. The pollutants include: oil and other automobile fluids, paint, construction debris, yard and pet wastes, pesticides, and litter.

Polluted storm water flows through the storm drain system that takes water and debris straight from the streets and parking lots to our streams and rivers. Each day polluted storm water enters our streams untreated, leaving toxic chemicals in our waterways and tons of trash along their banks. Polluted storm water contaminates our streams and rivers, harms aquatic life and increases the risk of flooding by clogging storm drains and catch basins. Overall, storm water pollution costs us millions of dollars per year.

For more information or assistance, call, e-mail or write:

**Tennessee Small Business  
Environmental Assistance Program**  
8<sup>th</sup> Floor, L&C Annex, 401 Church Street  
Nashville, TN 37243-1551  
**1-800-734-3619**  
**BGSBEAP@state.tn.us**  
<http://www.state.tn.us/environment/dca/index.html>

## **Car Maintenance Impacts**

Many common car maintenance routines contribute to storm water pollution. Activities such as washing cars, overfilling oil containers, and spilling or pouring used motor oil into a gutter or storm drain will pollute our streams and rivers.

Storm water runoff from streets, parking lots and driveways picks up oil and grease dripped from cars, asbestos worn from brake linings, zinc from tires and organic compounds and metals from spilled fuels. These chemicals drain into streams and rivers harming fish and aquatic life.

Oil and grease clog fish gills and also reduce the amount of oxygen from air entering the water. If oxygen levels in the water become too low, aquatic animals die.

## **Best Management Practices**

There are federal and state storm water regulations that require some facilities to establish Best Management Practices (BMPs). Recent permitting requirements for local water facilities may result in greater scrutiny and enforcement of facility environmental operations. These Best Management Practices (BMPs) will help ensure cleaner streams and rivers across the State of Tennessee.

### **1. Spills**

Implement simple work practices to reduce the chance of spills. Use a funnel when pouring liquids (like lubricants or motor oil) and place a tray underneath to catch spills. Place drip pans under the spouts of liquid storage containers. Clean up spills immediately.

Provide spill containment, cleanup kits, and safety equipment.

Use kitty litter, sawdust or cornmeal to bind liquids. To obtain information on proper disposal of waste materials, call the Environmental Assistance Center of the Tennessee Department of Environment and Conservation at 1-888-891-8332 or web site <http://www.state.tn.us/environment/>.

## **2. Cleaning Work Sites**

Do not hose down your shop floor. It is best to sweep it regularly. Use non-toxic cleaning products:

- Baking soda paste works well on battery heads, cable clamps, and chrome;
- A mixture of baking soda and a mild, biodegradable dishwashing soap works well on wheels and tires;
- White vinegar or lemon juice mixed with water cleans windows.

## **3. Fluids**

Change fluids carefully and use a drip pan to avoid spills. Prevent fluid leaks from stored vehicles. Drain fluids such as unused gas, engine, transmission, and hydraulic oils, and brake and radiator fluids from vehicles or parts kept in storage. When practical, reuse and recycle fluids or take them to a recycler. For more information contact the Division of Community Assistance at 1-800-287-9013 or our web site at <http://www.state.tn.us/environment/dca/index.html>.

## **4. Parts Cleaning**

For parts cleaning, it is best to use an aqueous parts washer. Rather than using solvents, these units rely on mechanical force and heat to accomplish the cleaning process. Also these units are preferable to a solvent cleaning procedure that allows spills.

There are four (4) types of aqueous cleaning units – microbial sink-top, spray cabinets, immersion, and ultrasonic. Microbial sink-top units are used for quick and light duty cleaning. Spray cabinets are used for heavily solids on large volumes of parts. Immersion units are used when parts need to soak. Ultrasonic units are used for hard-to-clean parts, blind holes, and hidden surface areas.

Because the use of solvents create unnecessary environmental, worker health, and fire liabilities for your facility, you may minimize your costs and regulatory liabilities by switching to aqueous solutions.

## **5. Washing Vehicles**

Prevent oil and grease, suspended solids and toxins from washing into storm drains.

Designate a washing site where water drains to the sanitary sewer system. The area must be paved and well marked as a wash area. Post signs prohibiting oil changes and washing parts with solvents. Train all employees to use the designated area.

Wash vehicles with biodegradable, phosphate-free detergent. To conserve water use a bucket (not a running hose) to wash and rinse the car.

## **6. Fueling Vehicles**

Gas and diesel spills are common when fuelling vehicles. To minimize pollution:

- Design fuel areas so that all spills are contained and runoff does not carry spills into storm drains. Spills should be directed to containment area that allows for proper treatment and disposal.
- Cover the fueling area to keep rain from washing away spilled materials. Extend the cover several feet beyond the containment area.
- Keep absorbent materials on site to allow prompt cleanup of spills.
- Post signs instructing people not to overfill gas tanks. Overfilling causes spills and contributes to air pollution.

## **7. Recycling**

Recycle metal scraps, used tires, used oils, antifreeze, aluminum cans, paper, and cardboard. Check the yellow pages under “Recycling” to locate a recycling facility for your particular product. For recycling used oil contact the Division of Community assistance at 1-800-287-9013.

## **8. Employee and Customer Education**

Educate your employees. Include water quality training in new-employee orientations and conduct annual review sessions.

Educate your customers. Raise both employee and customer awareness by stenciling storm drains near the workplace with the stormwater program stencil—“Dump No Waste—Drains to River.”



This pamphlet was produced by the Small Business Environmental Assistance Program of the Tennessee Department of Environment & Conservation’s Division of Community Assistance.



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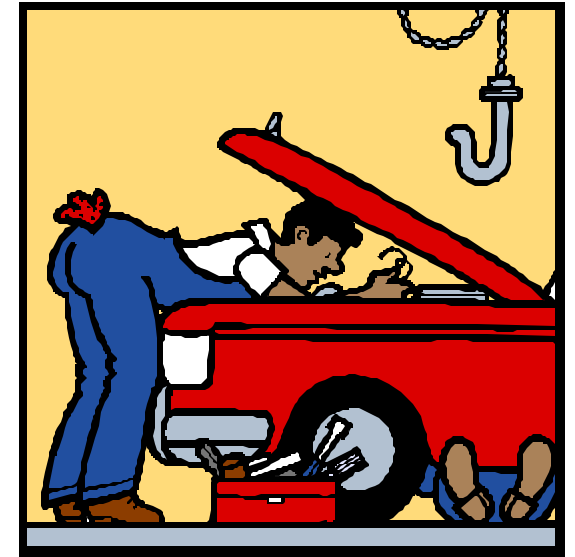
To Reach Your Local  
Environmental Assistance Center  
**Call 1-888-891-8332 or**  
**1-888-891-TDEC**

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# **Storm Water Best Management Practices (BMPs)**



## **Automotive Maintenance & Car Care**

**TENNESSEE DEPARTMENT OF ENVIRONMENT &  
CONSERVATION  
SMALL BUSINESS ENVIRONMENTAL ASSISTANCE  
PROGRAM (SBEAP)**

**1-800-734-3619**

[BGSBEAP@state.tn.us](mailto:BGSBEAP@state.tn.us)